

**Abstract**

The present invention is directed to methods for controlled and optimized removal of cerebrospinal fluid (CSF) from the CSF space of a patient. The methods are particularly intended for the treatment of Alzheimer's disease and other conditions which are caused by, or otherwise related to, the retention and/or accumulation of toxic substances in the CSF. One aspect of the present invention provides a method for shunting toxic substances present in a brain ventricle to the sinus system of an individual suffering from, or at risk of developing, a condition related to the retention and/or accumulation of toxic substances in the CSF, such as Alzheimer's disease. In addition to Alzheimer's disease, the present invention will be useful for treating other conditions resulting from the accumulation of toxic substances and resulting lesions in the patient's brain, such as Down's Syndrome, hereditary cerebral hemorrhage with amyloidosis of the Dutch-Type (HCHWA-D), epilepsy, narcolepsy, Parkinson's disease, polyneuropathies, multiple sclerosis, amyotrophic lateral sclerosis (ALS), myasthenia gravis, muscular dystrophy, dystrophy myotonic, other myotonic syndromes, polymyositis, dermatomyositis, brain tumors, Guillain-Barre-Syndrome, and the like.